

059143

JPRS 82546

28 December 1982

Worldwide Report

TELECOMMUNICATIONS POLICY,
RESEARCH AND DEVELOPMENT

No. 254

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

Reproduced From
Best Available Copy

19990720 059

FBIS

FOREIGN BROADCAST INFORMATION SERVICE

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

356
A04

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

28 December 1982

WORLDWIDE REPORT
TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 254

CONTENTS

ASIA

AUSTRALIA

Government Considers Cutting Share of Satellite to Under 50 Percent (Various sources, various dates)	1
Arguments on Aussat Ownership, by Michelle Grattan Threat to Taxpayers	
Davidson Inquiry Recommends Private Sector Role in Telecom (Various sources, various dates)	3
Contents of Report Editorial Comment	
Further Details From Report on Future of Telecom (Various sources, various dates)	6
Major Recommendations National Objectives Union Opposition	
Perth-Dampier Pipeline To Accommodate Commo System (THE WEST AUSTRALIAN, 4 Nov 82)	9
Data General Opens New Office in Papua New Guinea (THE AGE, 9 Nov 82)	10
Broadcasting Tribunal Reports on Cable TV, Telecom Roles (Lorenzo Boccabella; THE SYDNEY MORNING HERALD, 19 Oct 82)	11
Lack of Gov't Support for Computer Industry Assessed (Barry Westlake; THE AUSTRALIAN, 19 Oct 82)	12

Data General Supports Start-Up of Telecom Data Link (THE AGE, 26 Oct 82)	13
Government Disinterest in Technology Causes Import Imbalance (THE COURIER-MAIL, 26 Oct 82)	14
West Australia Notes Objections to Satellite Plan Changes (Nigel Wilson; THE AGE, 2 Nov 82)	15
Remote Communities Reject Commercial TV Use of Aussat (THE WEST AUSTRALIAN, 28 Oct 82)	16
Briefs	
New Microwave Link	17
Remote TV Service	17
Austac Multiplexer	18
INDIA	
Briefs	
Television for Trivandrum	19
PAKISTAN	
Railways Plan Microwave Testing in December (DAWN, 17 Nov 82)	20
Steps Toward Islamic Network of Communications Reviewed (Editorial; THE PAKISTAN TIMES, 21 Nov 82)	21
SUB-SAHARAN AFRICA	
INTER-AFRICAN AFFAIRS	
Details on SADCC Information System Given (THE HERALD, 18 Nov 82)	23
GABON	
Radio Television Station To Be Completed in March (Jean-Philippe Bikiro; L'UNION, 10 Nov 82)	25
SENEGAL	
Tamba To Have Television in Two Months (LE SOLEIL, 23-24 Oct 82)	26
SOUTH AFRICA	
Cultural Role of South African Television Examined (Greg Garden; RAND DAILY MAIL, 24 Nov 82)	27

Briefs		
Two-Way-Radio 'War'		28
Computer Deal		28
'Tswana Phone Order		28
TV Service Talks		29
ZAMBIA		
Minister: 'Radio Reception in Northern Province Generally Bad'		
(DAILY MAIL, 1 Dec 82)		30
Briefs		
Radio Transmitter Purchase		32
WEST EUROPE		
FRANCE		
Telephone, Electronic Equipment Export Developments		
(ELECTRONIQUE ACTUALITES, 29 Oct 82)		33
Telephone Contracts in Iraq, USSR, by D. Levy		
Electronic Equipment Exports Decline		
Strategies of Thomson, CIT-Alcatel in Telecopier Market		
(Blandine Hennion; L'USINE NOUVELLE, 4 Nov 82)		37
Bull, Tansac-Alcatel, Thomson's DAP Form Date Processing Group		
(Olivier Fleurot; L'USINE NOUVELLE, 18 Nov 82)		41
ICELAND		
Soviet TV Received Through Horisont I Satellite		
(MORGUNGLADID, 6 Nov 82)		43
Marxist Party Organ Envisions Soviet TV in Icelandic		
(Staksteinar; MORGUNBLADID, 6 Nov 82)		44
NORWAY		
Telecommunications Agency Taking Bids on Digital Exchanges		
(Knut Lovstuhagen; AFTENPOSTEN, 2 Dec 82)		46
SWEDEN		
'Telebild' Teledata System Provides Information to Business		
(Kjell Brodda; SVENSKA DAGBLADET, 30 Sep 82)		49

GOVERNMENT CONSIDERS CUTTING SHARE OF SATELLITE TO UNDER 50 PERCENT

Arguments on Aussat Ownership

Melbourne THE AGE in English 6 Nov 82 p 3

[Article by Michelle Grattan]

[Text] CANBERRA. — The Federal Government was willing to consider reducing its ownership in the domestic communications satellite to a minority 49 per cent, the Minister for Communications, Mr Brown said yesterday.

This would be a major policy change from the present position, which is for the Federal Government to have at least 51 per cent.

Mr Brown said there were "strong arguments" in favor of the Government having majority ownership, and against it.

"The advantage of a majority Government ownership is that you guarantee, almost beyond argument, the preservation of the public interest," he told 'The Age'.

"But it is said by some that if the Government is in a slight minority, it means that Government representatives on the board have to prove their case — rather than just saying yes or no. They would have to persuade other shareholders by the force of argument."

Mr Brown said final decisions on ultimate ownership shares probably would be made in the first half of next year. At present the company owning the satellite, Aussat Pty Ltd, remains 100 per cent Government-owned. Aussat will be converted to a public company and shares sold during 1983.

Mr Brown said that although —

the expectation had been that Aussat would be 51 per cent Government-owned, "you can't close your ears to representations — they will have to be considered."

He said he still had an open mind on the question.

Mr Brown said that an issue which had to be resolved "in the next few weeks" was how transponders on the satellite were to be used.

The ABC has use of half of the 30 watt transponders, but Cabinet must decide how the remaining transponders will be used.

At least two options are before the Government:

- To allow the transponders to be used by regional television stations which would go into a joint venture with a new company, Television Australia Satellite Systems. This scheme would have the advantage of promoting local content in particular regions.

- To allow the national networks to have access to the transponders.

Mr Brown said a Government decision on this was required before Aussat could fix its tariff rates for use of the satellite.

Mr Brown late last month met representatives of regional TV stations, Television Australia Satellite Systems and other potential hirers of the satellite who are promoting educational and community use of the system.

If the satellite's remaining 30 watt transponders went to the regional stations' joint venture, TV consumers would have to pay a subscription fee to receive programmes from the system.

Threat to Taxpayers

Brisbane THE COURIER-MAIL in English 9 Nov 82 p 13

[Text]

Canberra.- Taxpayers were being "softened up" to hand over large profits to business organisations which took up shares in the domestic satellite, the Federal Opposition claimed yesterday.

Labor's communications spokesman, Senator Button, said that when the Aussat company was formed he warned that control could be handed over to the private shareholders.

He said: "The Government's declaration that it would retain 51 percent of Aussat was always questionable."

Senator Button was commenting on a statement by the Communications Minister, Mr Brown, that the Government was pre-

pared to consider cutting its share in the satellite to less than 50 percent.

Mr Brown said any such move would be due to the need to make the satellite-owning company more commercially oriented.

The ownership of Aussat would be reviewed before 1983 when the company, now 100 percent Government-owned, was due to be converted into a public company.

Senator Button said: "The danger is that private organisations, with majority control, will manipulate the situation and might deliberately depress the profits of the satellite while maximising their earnings through ground operations."

"That would leave the taxpayer, in effect, subsidising them."

CSO: 5500/7516

AUSTRALIA

DAVIDSON INQUIRY RECOMMENDS PRIVATE SECTOR ROLE IN TELECOM

Contents of Report

Perth THE WEST AUSTRALIAN in English 29 Oct 82 p 3

[Text] Canberra: Massive involvement by private enterprise in the Australian telecommunications industry, and the virtual freeing of Telecom from Government controls, are recommended by a government report.

The report of the Davidson inquiry into the industry was tabled in Federal Parliament yesterday by the Minister for Communications, Mr Brown.

He called for a vigorous public debate before the Government decided whether to accept the report's recommendations.

The Australian Telecommunications Employees' Association said that the recommendations would cost 15,000 jobs and add \$100 a year to the average telephone bill.

But the report was welcomed in business circles for the access it would give it to the lucrative and expanding telecommunications industry.

The report aims to make the telecommunications system more efficient and cost-effective, which would mean increases in prices for sections that are now subsidised.

It recommends that three-minute local calls be introduced as soon as possible to replace the present unlimited time duration calls. [as published]

The report says that private enterprise or local councils should be able to operate their own public telephones.

Telecom would be reestablished as a govt-owned company and would be free of govt staff, borrowing and price control guidelines.

The report says that Telecom should be responsible only for the national telecommunications carrier network. A new body, Telequip, should be set up to market telecommunications equipment.

Competition

Private enterprise would be able to compete with Telequip to sell, install and maintain telephone and other equipment.

The report recommends that the Govt be able to license private telecommunications networks to provide a complete alternative to Telecom.

The report recommended that the changes be phased in over three years.

The Telecom unions yesterday predicted that Australian manufacturers would join their opposition to the report because of the damage it would do to Australia's electronics industry and the unemployment it would cause.

In Perth last night the secretary of the WA Trades and Labor Council Mr Peter Cook, said: "When a major authority committed to acting for the public good is replaced by private companies committed to acting for a profit, then costs must rise.

"Only the profitable services will get attention, thus leading to inefficiencies or lack of services in other areas."

Editorial Comment

Melbourne THE AGE in English 2 Nov 82 p 13

[Editorial]

[Text] Of all the business enterprises run by Governments in Australia, none is more of a hybrid of business and Government than Telecom. On the one hand, it is the biggest business enterprise in Australia. It has a monopoly over large areas of the rapidly growing and highly profitable telecommunications industry. Many of the services it provides have no welfare content, are at the frontiers of technology, and are commonly left in other Western countries to the private sector.

For all this, Telecom operates in many ways more like a Government department than a business. Many of its services such as country telephone calls are provided at well below cost, on what could loosely be called welfare grounds, while other services in effect are taxed heavily to subsidise them. Its staff are subject to Public Service conditions (including superannuation), and the Federal Government has hampered its efficiency by imposing staff ceilings, forbidding it to compete in some areas and restricting its access to the capital market. It is forced to purchase most of its equipment in Australia for political reasons. It not only acts as the common carrier for telecommunications, but is also the regulatory authority responsible for setting standards for telecommunications equipment.

In a nutshell, the Davidson report released last week argues that this conflict of roles should be terminated, and that Telecom should operate as

a publicly owned commercial business. The report proposes that Telecom be cut adrift from the Public Service, and from the constraints imposed by Ministers on its staffing, capital funds, source of equipment and fields of business. Telecom would lose its power to set technical standards for equipment, and it would be required to pay taxes and rates like any other company. The report further recommends that Telecom should stop subsidising one service by another, and instead base its charges on the real cost of providing the service. Finally--and perhaps most importantly--its monopoly over telecommunications services would be ended, and private companies would be able to compete with it in providing any form of service, including the resale of capacity leased from Telecom.

The starting point of the Davidson report is, of course, an assumption that competition is a good thing. It follows the ramifications of this assumption through with impressive rigor and consistency, ensuring that neither Telecom nor its private sector rivals would have any unfair advantage in the ensuing market war. Certainly the private companies would be able to direct their resources to the most lucrative fields, whereas Telecom is bound to offer a common service. But this apparent advantage would be largely negated by the proposed reforms to Telecom's pricing, giving it the flexibility to make its charges competitive. Further, the report insists that Telecom be free to negotiate what it will charge its rivals for the inevitable interconnections to its own network--while adding that such charges should be determined by the electronic equivalent of the Queensberry rules.

The Davidson inquiry has done a commendable job. But the very rigor of its logic has created a serious obstacle to the Fraser Government accepting its blueprint. In effect, the inquiry has told the Government it can have a competitive telecommunications industry only if it is prepared to allow charges for country phone calls (and to a lesser extent, city domestic calls) to rise to the true cost of the service. The Government may choose to offer subsidies itself to the users who thus lose their subsidies from Telecom. But it cannot take this unpalatable aspect out of the report without destroying Telecom's ability to compete fairly with its rivals. This is a hard choice for any Government to make. But the Davidson inquiry has made out a persuasive case for concluding that fair and free competition would be in Australia's best interests.

CSO: 5500/7515

FURTHER DETAILS FROM REPORT ON FUTURE OF TELECOM

Major Recommendations

Sydney THE SYDNEY MORNING HERALD in English 29 Oct 82 p 10

[Excerpt]

There are 103 recommendations in the Davidson report. The major ones are:

- The unrestricted resale by private operators of capacity leased from the national Telecom network.
- The establishment of independent networks with no restriction on the class of traffic to be carried. The networks would have to be authorised to carry on common carrier activities.
- The Australian satellite company, AUSSAT, should be allowed to lease, but not own, the terrestrial, or ground, networks.
- The independent and Telecom networks should conform to the existing standards.
- The private networks could be interconnected with Telecom's national ground public switched network, subject to approved standards, and ministerial authorisation.
- The involvement of private enterprise in all aspects of the marketing installation, and wiring of telephone and terminal equipment. Technicians, or "tele-electricians" should be licensed to perform these duties.
- Technical standards for the equipment should be set by the Standards Association of Australia.
- Local councils, Australia Post and community groups, as well as Telecom, should provide public telephones.
- Red phones should be leased, or sold by Telecom, with the price being set by owner, or lessee.
- Australia Post should take over the national telegram service, using networks leased from Telecom.
- Telecom should consider joint venture with private enterprise in manufacturing communications equipment.
- Telecom's pricing policy should reflect costs, minimise price discrimination, and adopt timed local calls.
- Cross subsidisation should be reduced to levels which can be absorbed, while remaining competitive.
- Telecom's executive should develop marketing and business skills, with 10-20 per cent being recruited from outside the organisation.
- All aspects of Telecom's staff recruitment, training and dismissals should be determined by the board of Telecom, free of government controls.
- Telecom should be reestablished as Telecom Australia Ltd, with a statutory requirement to generate sufficient profit after tax payments to finance the assets required to meet the demand for its services.
- Telecom's borrowings should not be subject to Loan Council approval.
- The Telecommunications Act and the Wireless and Telegraphy Act should be replaced by a new Act along the lines of legislation included in the report.
- A national Telecommunications Council should be established.

National Objectives

Sydney THE SYDNEY MORNING HERALD in English 29 Oct 82 p 10

[Excerpts]

The report of the Davidson committee of inquiry into telecommunications services in Australia has recommended sweeping changes to the way the services are set up.

Chief among the recommendations are the end of Telecom's monopoly and greater private sector involvement in providing telecommunications services.

In arguing its case, the Davidson committee said that during the two decades of the fifties and sixties, when there was one telephone per 10 persons the need was to provide basic voice communication to as many people as possible.

"Today when there is one telephone to every three persons the priorities are different."

The committee said the telecommunications industry was large in both investment and employment. In 1981 Telecom employed about 90,000 people, had a revenue of \$2,600 million and bought equipment to the value of \$370 million — mostly from the local manufacturing industry.

"The committee is pleased to be able to acknowledge that Telecom and the Postmaster General's Department before it have established a telecommunications network that is recognised internationally as being well designed and soundly constructed."

But in the 1980s more was needed.

"There is now an ever increasing variety of services that can be offered through the telecommunications infrastructure and an ever increasing number of people prepared to pay for them."

"The committee found wide support for a fast introduction of these new telecommunication services into Australia."

The committee said so many submissions made to it had supported its proposals by reference to the national or public interest that it felt it was necessary to consider what these objectives were.

It concluded the national objectives could be summarised as follows:

- to provide every householder with the opportunity to obtain a telephone at a fair cost;
- to maintain a level, range and quality of telecommunications services which will permit Australian industry and commerce to remain internationally competitive;
- to achieve growth in telecommunication services which will provide employment in the telecom-

munications industries and the many industries using those services;

- to ensure that the benefits of technological developments are made available as widely as possible;
- to provide a sustainable industry base for local manufacture, assembly, product development and software adaptation and development;
- to ensure maximum reliability of telecommunications services.

The committee said that in formulating its recommendations to achieve those objectives it had established the following criteria against which to test its conclusions:

- a monopoly should be preserved by legislation only where there are net public benefits not achievable by competition;
- where there is competition, the structure of the industry should encourage fair competition and innovation;
- compatibility between telecommunications systems and equipment should be maintained so that communications between networks or customers were not restricted;
- that the committee recommendations should create an environment for orderly change.

The report said: "The committee emphasises the need for overall planning and development of Australia's telecommunications within a rapidly changing technological environment."

"If we fail to provide the telecommunications services essential to modern society we will not only create substantial hardships for Australia, but also miss the wave of technology which offers great potential for social and economic benefits."

Union Opposition

Melbourne THE AGE in English 3 Nov 82 p 4

[Text]

SYDNEY. — Telecom workers will refuse to co-operate with any attempt by the Federal Government to implement the Davidson report on telecommunications.

At least 3000 Telecom employees from seven unions voted overwhelmingly in Sydney yesterday to oppose any attempt to break up Telecom or hand it to private enterprise.

The Davidson report, tabled in Federal Parliament last week, recommended a business-oriented Telecom competing with private industry.

The Federal president of the Australian Telecommunications Employees' Association, Mr Colin Cooper, said the report, if implemented, would mean the loss of 15,000 jobs in the electronics manufacturing industry, dramatic price increases for all telephone subscribers and the downgrading of services.

He said the report displayed "incredible ignorance" about Australia's telecommunications system, and proved that the committee was incapable of providing an adequate report on the network.

The options adopted by the committee were almost exclusively those put forward by private business consortiums such as Business Telecommunications Services, Mr Cooper said. BTS

has supported the findings of the inquiry.

Mr Cooper said the recommendations would make Telecom dependent on overseas-made products.

The report recommends that Telecom should support local manufacturing industry only when it is in Telecom's commercial interest or when a Government policy for industry applies.

Mr Cooper said fundamental conditions of service such as job security, maternity leave and superannuation enjoyed by Telecom employees were now threatened.

The unions accept only five of the report's 103 recommendations.

The meeting voted to continue a public and political campaign against the Davidson recommendations and to mount industrial action if the Government persisted with implementation of the report.

Mass meetings of Telecom workers in several New South Wales country areas adopted similar resolutions.

The NSW secretary of the Administrative and Clerical Officers' Association, Mr Barry Cotter, said an industrial campaign was a last resort, but the unions would begin to prepare for one immediately.

The Government has proposed a three-month period for public debate on the report.

CSO: 5500/7516

PERTH-DAMPIER PIPELINE TO ACCOMMODATE COMMO SYSTEM

Perth THE WEST AUSTRALIAN in English 4 Nov 82 p 10

[Text]

THE \$40 million communications system being installed along the Dampier-Perth natural gas pipeline will not mean instant communications for telephone customers along its length.

Telecom has moved to dispel rumours that

latest communications facilities are "just around the corner."

The comment applies to those customers known as waysiders.

Telecom is sending representatives to the area next week to explain the situation to would-be customers.

The team will comprise Telecom's Geraldton sales manager, Mr Graeme MacDonald, and customer project officer, Mr Alan Goodchild.

Mr MacDonald explained that the communications system itself was made up of two parts. Primarily it was being provided for the SEC to maintain control of its pipeline along its entire length. Additional to the SEC link, Telecom would install its own system.

Telecom equipment would be housed in a separate building at each site. Sites would be located about 30km apart and the main feature of each would be a tower carrying microwave dishes.

Of the 43 sites, towers had so far been constructed at five immediately south of Karratha.

Mr MacDonald said that because Telecom was working in the area, customers were keyed up. It would be December 1984, however, before the system was completed and it could take up to 12 months to provide wayside services.

The Telecom team will visit Lyndon Station on November 9 for a 1pm meeting with local station owners. On November 11 a meeting will be held at Gascoyne Junction at 1pm at the council chambers.

Mr MacDonald said letters of invitation had been sent to those parties who were likely to be affected. However interested members of the public were welcome to attend the meetings.

Telecom expected to provide wayside services to between 40

and 50 homesteads located mainly between Dampier and the Murchison River. Essentially, these homesteads were located no more than 50km either side of the pipeline and where houses were not nestled in gullies.

It would cost as much as \$18,000 to provide each service, however under Telecom's rural policy customers would pay a maximum of \$1350.

Mr MacDonald said Telecom was prepared to look at the viability of providing services to customers as far as 80km from the pipeline. However, Telecom did not have the funds to spend in excess of \$18,000 per customer.

DATA GENERAL OPENS NEW OFFICE IN PAPUA NEW GUINEA

Melbourne THE AGE in English 9 Nov 82 p 33

[Text]

Data General has opened its new Papua New Guinea head office at Jacksons Airport, Port Moresby.

The company, which has 14 installed computer sites in Papua New Guinea, also announced a significantly increased service support programme to many of the large mining companies in the country, which are users of Data General equipment.

"We wanted to show users and special guests the high level of on-the-spot support service we provide in Papua New Guinea," the branch manager, Mr John Hudson, said.

"They were pleasantly surprised at the extensive range of technical facilities we provide from a local level," he added. "I don't think some realised that we provide full support for all of the Data General products we sell from a local level."

The general manager of Data General, Mr John Dougall, told guests about the company's local cadet training programme and the training in areas of high technology which he said would increase Papua New Guinea's independence.

"More than half of this country's GNP is derived from mining projects which to be cost-productive and cost-efficient involve a high degree of automated technology," he said.

"Data General has in the past, and will continue in the future to be heavily committed to the development of natural resources in areas of state-of-the-art technology because of our very high investment in research and development."

Ironically, Data General's new office location is in the same building in which an MV/8000 computer is about to be installed for data processing for the Ok Tedi mining project.

CSO; 5500/7517

BROADCASTING TRIBUNAL REPORTS ON CABLE TV, TELECOM ROLES

Sydney THE SYDNEY MORNING HERALD in English 19 Oct 82 p 21

[Article by Lorenzo Boccabella]

[Text]

Cable television could become a competitor to both Telecom and the domestic satellite in the provision of communications services for Australia.

This emerged from the recently completed report by the Australian Broadcasting Tribunal to the Federal Government which recommended that all cable TV systems be required to provide interactive facilities in their networks.

What this means is that cable TV could be used as a future common carrier for computer and other forms of communications.

However, there are serious security or privacy risks associated with the use of coaxial cables — the current conduit for cable TV systems — and the appropriate technology may not be commercially viable at present.

Significantly, IBM in the United States is considering using cable TV systems as a common carrier network, bypassing telephone and other leased lines for communications.

The broadcasting tribunal has created the scope for private companies to provide communications services to the public and business because it has recommended against Telecom gaining a monopoly on the provision of cable TV systems.

At the tribunal hearings Telecom argued that as the national communications carrier it would be the

most efficient body to establish the cable network. Telecom had proposed leasing individual channels to private organisations.

Because cable TV has a communications capacity beyond the mere carriage of video pictures, the tribunal's decision means that Telecom's statutory monopoly is under threat.

However there are still serious limits on the use of cable TV for information communications if fibre optics technology is not used.

But using existing commercially viable technology cable TV could provide a range of services from video to electronic funds transfer for banking to teleshopping.

The coax cable TV system uses what is called a tree network. This is analogous to a water pipe so that every person connected to the system receives all information or signals flowing down the lines.

The tuner or keyboard terminal selects the desired signal. This also means that big flows of traffic upstream are difficult.

The tribunal report said: "A conventional coaxial cable tree is not an efficient delivery system for interactive services. This is because the network provides a party line type of connection and a single subscriber monopolises a circuit throughout the whole system during the period that the information is flowing to or from that subscriber."

"Time division multiplexing of 'upstream' signals from individual subscribers can be adopted to

enable shared use of the single upstream path to be achieved."

The report then identified two classes of data flows where cable TV would be useful. These were:

Low data rate upstream and low data rate downstream. For example, monitoring services including security systems, energy management systems, meter reading, polling and the like.

Low data rate upstream and medium data rate downstream. For example information retrieval services, video games, tele-shopping, telebanking and so forth.

The report however said that cable TV systems would be unsuitable for high data rate flows of the kind needed for teleconferencing and the interchange of high-speed data between computers.

This could all change if fibre optics technology is used to provide a switched or star network. This would make the cable TV system similar to the telephone system.

Fibre optics are still commercially marginal on a large scale but if or when such systems are viable then the merging of entertainment and communications services will occur on a rapid scale.

In the interim cable TV could provide a significant amount of Australia's telecommunications services. But it raises important policy questions such as the cross-subsidies within the Telecom system.

But another Government inquiry is looking at that.

LACK OF GOV'T SUPPORT FOR COMPUTER INDUSTRY ASSESSED

Canberra THE AUSTRALIAN in English 19 Oct 82 p 25

[Article by Dr Barry Westlake, director of research and development, Easinet]

[Text] THE addresses by David Hartley and Barry Jones at The Ninth Australian Computer Conference have generated a resurgence of interest in the lack of support of the Australian computer industry.

It is essential that this interest not fade.

Conversely, the generation of a panic response could be extremely detrimental to the potential growth of the industry.

Undoubtedly calls will be made for tariff protection, purchase embargos, research fundings and other handouts.

Such solutions have been sought for other industries within Australia and, in general, have not led to significant strengthening of the recipients.

Revolution

Neither will the problems being faced by the Australian computer industry be helped by such techniques alone.

An examination of the causes of the computer revolution of the past generation show that a number of factors were instrumental in the huge technological advances made in micro-electronics development.

The most significant were the US aerospace and defence programs.

In both of these programs, lucrative government contracts allowed small and large companies alike to develop new products from nothing more than a specification and a rough prototype.

Once developed for the original purpose, companies with foresight and expert management were able to capitalise on the developments and introduce them to the commercial world.

In Australia, government agencies have been quite notable for their lack of support for local enterprises in the areas of computerisation.

My company, Easinet, which is a wholly-Australian venture, has produced a computer-aided design system with many innovative features which make it a state-of-the-art product capable of competitive standing in the world-wide market place.

It has made a significant impact on the Australian market since its introduction two years ago.

But there is not one Easinet installation within a government or semi-government agency, even though such groups have purchased similar equipment from overseas manufacturers.

Easinet has relied on its own resources and the foresight of a number of private companies (large and small) who have permitted the product to be developed towards its true potential.

Lack of support for systems such as Easinet, especially by government agencies, has resulted in the establishment of a strong customer base for imported systems and a significant slowing of potential development in local products.

Modern technology moves ahead very quickly and a new product must develop at maximum acceleration.

Easinet's experience is far from unique within Australian industry.

Preference for imports, even when their cost is similar to the Australian product, has had a detrimental effect on the progress of many industries.

It is almost impossible for an Australian company to gain worthwhile US or UK government contracts.

Yet our own government allows US and UK computer products to gain preference over Australian products for Australian Government contracts.

Governments and private companies should look to the development of Australian industry by buying from it and ensuring its growth.

During the next two decades, the Asian market for high technology innovation will expand dramatically.

That is a marketplace in which Australia should be capable of attaining a large share.

Relaxation

But, if current policies are not reversed, we will become a user of imported technology (like most Third World countries) and not a developer and marketer of state-of-the-art products.

Temporary relaxation of sales tax on Australian computer products and government subsidy for high-level research and development will be of benefit to the Australian computer industry.

But other governments are not ashamed to give total preference to their own country's products, and Australian government agencies and Australian companies should be proud to follow suit.

DATA GENERAL SUPPORTS START-UP OF TELECOM DATA LINK

Melbourne THE AGE in English 26 Oct 82 p 36

[Text] The General manager of Data General, Mr John Dougall, says he strongly supports the commencement of Telecom's new packet-switched data communications link service late this year, despite some industry claims that computer manufacturers are not ready for the service.

He said that equipment manufactured by some of the world's top computer vendors did not include the communications protocol X.25, which is the base standard for Auspac.

This meant that many large Australian users of equipment made by those vendors, could not link up with the new Telecom service until their systems were adapted to interface with the new data transmission line.

Mr Dougall said that the X.25 base protocol for Auspac had been publicised by Telecom a long time ago, and that computer manufacturers should have catered for it by now.

"Data General was the first computer company in the world to base our networking on the X.25 communications protocol because it was made quite clear that it was likely to become the accepted international standard

for transmission links. "It was expected that any new major communications link such as Auspac would conform to the international standard," he said.

Data General equipment was fully compliant with many overseas public data network links such as Telenet and Tymnet (USA), Datapac (Canada) and the major communications link in France, Datapac, on which the Australian Auspac network is based.

Mr Dougall said Data General had invested heavily in research and development to maintain that communications protocol to enable its equipment to interface with most public and private data transmission links around the world.

He said the introduction of Auspac would herald the beginning of a new era for data communications transmission in Australia.

"With the introduction of the new service, all users, big and small will have available a nationwide service incorporating switching, transmission and network intelligence at a price which will put it within the financial reach of many new businesses."

One of the features of the new Telecom data link is that it will

be available everywhere in Australia and that remoteness or distance between installations will not carry the usual cost penalty, he said.

Telecom had announced that tariffs would be distance independent and that users would only basically pay for the time used to transmit data.

Many Australian companies had previously been reluctant to install large distributed data processing networks because of geographical remoteness between States and the extensive costs involved in the installation of interstate networks on leased or dial-up lines.

"But growing computer user requirements and developments in technology, have forced the change."

Mr Dougall said that in recent years, growth in data transmission requirements in Australia, had been in the order of 40 per cent each year and that the rate forecast for the 1980s exceeded 25 per cent a year.

"Auspac will provide a much cheaper communications link which will alleviate many of the previous cost-prohibitive factors for many businesses."

CSO: 5500/7514

GOVERNMENT DISINTEREST IN TECHNOLOGY CAUSES IMPORT IMBALANCE

Brisbane THE COURIER-MAIL in English 26 Oct 82 p 24

[Text]

AUSTRALIA has become a technological colony, operating in an environment of total political disinterest.

According to Dr Bill Caelli, chairman of the Australian Computer Society's national hardware technology and hardware industry committee, that's the reason behind Australia's massive import imbalance in the computer trade.

His attack on government policy, or lack thereof, centres on figures released in the October issue of the Australian Computer Bulletin. Those figures showed imports versus exports of computers by country for the year 1980.

The United Kingdom has an import/export ratio of one to 23. Australia's ratio is 41 to point zero four, behind Japan, Sweden, Spain, and Ireland.

"The president of the Australian Computer Society, Mr Ashley Goldsworthy, recently pointed out that according to United Nations figures Australia imports \$30 to \$40 worth of computers for every \$1 exported, possibly the world's highest ratio," said Dr Caelli.

He also cited the comments of Mr Charles Sporck, president of National Semiconductor Inc of the United States,

made during a recent Australian television program.

"Mr Sporck made the point that if the US was relegated to shipping soy beans and buying computers the economy of the United States would be a disaster area," said Dr Caelli.

"If you substitute the word 'minerals' for 'soy beans' then this underdeveloped future is the third world reality of Australia today.

"The same program said that the definition of a colony was a country which imported manufactured goods and exported raw materials.

"There is no doubt that Australia has reached a state of total technological colonisation, which has received no serious consideration in any of our national or state parliaments. The rapidly deteriorating state of industry in Australia seems to be taken as inevitable.

"There are a few, small high tech companies in Australia but they are faced with overwhelming disinterest in the federal political arena, a finance industry that is not interested in and does not comprehend the new industries and a mess of confused and unco-ordinated tariff policies and state and federal incentive schemes."

The drain of young computer science professionals to overseas countries was

another sore point with Dr Caelli.

He said that students were trained in the science for a non-existent industry and their only choice was to leave Australia to contribute to the overseas development of new, job creating industries for the next century.

"Dr Craig Mudge is an example," said Dr Caelli. "He left Australia as a student and went on to do important development work with Digital Equipment Corporation in the United States, as well as further academic work.

"He is now a key figure in the CSIRO's Very Large Scale Integration Program, based in Adelaide. In a sense, we are re-importing his expertise and this is not the only case."

The VLSI Program is under the auspices of the CSIRO's Division of Computing Research. It is researching a relatively new technology which could lead to end users designing their own integrated circuits.

"This state of affairs seems unique to Australia," said Dr Caelli. "It is a far cry from the USA and Japanese scene which emphasises the growing role of government, financial institutions and large private companies in the development of new industries."

CSO: 5500/7514

WEST AUSTRALIA NOTES OBJECTIONS TO SATELLITE PLAN CHANGES

Melbourne THE AGE in English 2 Nov 82 p 6

[Article by Nigel Wilson]

[Text] PERTH — The West Australian Government has strongly attacked aspects of proposals for a domestic communications satellite system, claiming the latest plans break promises made by the Federal Government.

The Premier of Western Australia, Mr O'Connor, has written to the Prime Minister, Mr Fraser, complaining specifically about changes to the plan announced in August.

Mr O'Connor said that in initial discussions about a domestic satellite, the Federal Government promised that the specific interests of WA would be taken into consideration.

Among the changes Mr O'Connor is concerned about is a design alteration which makes it possible for three of the four 30-watt transponders on each satellite to be switched between a spot beam and one covering the whole of Australia.

Essentially, the switch will allow the big television networks based in the eastern States to transmit their programmes throughout the country when operations begin in 1985.

With a spot beam there is more chance of centres outside metropolitan areas retaining control of television programming.

Mr O'Connor said yesterday that the changes would potentially disadvantage Western Australia.

He said the intrusion of Eastern States' networks on WA television stations, might threaten their local content, viability and community wishes.

Mr O'Connor said the changes would also mean that the School of the Air, still used extensively in outback WA, would not be able to use the satellite system effectively.

"The (WA) Government believes that control of local programming should be in local hands," he said. "This is very important from social, community, regional, financial and commercial points of view."

Representatives of Perth's two commercial television channels, which are not directly connected to the main networks, believe the transponder question should not be resolved until the Federal Government decides the wider question of the future of commercial television.

Mr Alf Binks of Perth's Channel Seven said it was far from clear what the Government planned, and to decide on the form the transponders before assessing the future of television was dangerous.

"A spot beam is equivalent to giving one of the commercial networks a commercial licence in each of the centres where there is now a local television station," he said. "This certainly would affect revenue."

Mr David Aspinall of Channel Nine said there appeared to be an urgency from the Federal Government to have the satellite design settled quickly before it really had information.

The two Perth stations and another based at Bunbury — WA's second largest population area — are proposing a consortium to operate the satellite system with in WA if a spot beam system is installed. This has the approval of the State Government.

REMOTE COMMUNITIES REJECT COMMERCIAL TV USE OF AUSSAT

Perth THE WEST AUSTRALIAN in English 28 Oct 82 News of the North p 20

[Text]

THE Remote Communities' Television Association (RCTA) this week called on the Federal Government to reject proposals to use the Aussat domestic satellite for the Australia-wide networking of commercial television programmes by the capital city TV networks.

The new association was formed this week to represent the needs of television users in remote areas.

The RCTA's first president, Mr Trevor Randall, who is also shire president of Bourke, NSW, said it was understood the city networks were attempting to persuade the Government to change the whole concept of the Australian Aussat satellite to give the three big capital city networks satellite "superstations."

Mr Randall said that at considerable additional cost to public funds the Government had agreed to provide powerful 30 watt transponders in the satellite that would enable thousands of isolated Australians in the outback to receive both ABC and commercial TV programmes directly from the satellite into their homes at a cost to each homestead or community of less than \$1000.

This decision had been widely welcomed in the remote areas to meet a much overdue need.

IF the satellite transponders to be used for commercial TV were now to be changed as the capital city networks wanted so that each beam could give national coverage instead of zonal or "footprint" — distributions, the power of the signal would be so weakened that some

30,000 isolated homes in the outback would be deprived of direct access to commercial TV programmes from the satellite.

The alternative would be for each homestead or community to put in expensive small earth stations at a cost of over \$7000 each to receive services that people in the cities received free of cost to themselves.

No such alterations were proposed for the ABC services which could still be available to isolated homesteads at less than \$1000 capital cost.

This would mean discrimination against commercial TV, a gross waste of public funds on the satellite cost as Aussat would no longer be used for the purpose for which it had been specifically designed at extra expense, and a devastating blow to thousands of disadvantaged Australians who might now never get any

commercial TV services.

Mr Randall said: "We call upon the Government to resist any proposals for change of the satellite use now."

"The Government held a special inquiry through the Carver committee before the design was approved and expenditure was committed."

"It was agreed then that the people of the outback should be serviced with television direct from the satellite at acceptable costs to themselves."

"The Government should stand by that decision, it is too late to change its mind."

"To make that cost prohibitive to isolated Australians in remote areas, would be outrageous."

"We don't see why the outback people should be penalised further."

"The Government has recently been very helpful in improving services for people who already have existing services."

"It is time the people who have got nothing at all should be given a go."

"We are aware that Regional Television Australia (representing all the regional commercial TV stations), and Television Australia-Satellite Systems Ltd (on behalf of local operators in the remote areas), last week put a joint

submission to the Government opposing any change in the satellite configuration."

"Discussions were held with the Minister for Communications, Mr Brown, in conjunction with the Public Broadcasting Association and the Satellite and Telecommunication Users' Association (Sat. Users)."

"We fully support those submissions to the government."

Mr Randall said that people living in remote areas are aware that it is now technically possible by using the existing Intelsat satellite, for them to receive television—the ABC is already doing this.

"We now know that it is viable through subscriber-funded systems developed by TVA."

"We recommend the Government:

- Retains the present configuration of the Aussat satellite for zonal broadcasting within the four footprints already allocated to four 30 watt transponders, and rejects any proposals to switch these transponders to national beams.

- Makes every effort to make commercial television services available in remote areas as soon as possible through the use of the Intelsat and the implementation of the Television Australia proposals."

AUSTRALIA

BRIEFS

NEW MICROWAVE LINK--Telecom's \$20 million microwave link between Port Hedland and the Kimberley towns of Broome and Derby will officially come into operation today. It will open when West Kimberley Shire president, Cr Peter Kneebone, makes an international subscriber dialled call to the Mayor of Derby, Kansas, USA. The historic call is due to be made at 7am, an hour after technicians bring the link into full operation. A similar call will be made by Broome shire president, Dr Peter Reid, at 4pm when he is to call the mayor of Broome's sister town in Japan. The completion of the link marks the end of the first stage in the project to link Port Hedland to Kununurra by microwave. The Derby to Kununurra section, now under construction, is due to be finished by the end of next year and will be the world's longest solar-powered communication link in the world. [Text] [Perth THE WEST AUSTRALIAN in English 4 Nov 82 p 1]

REMOTE TV SERVICE--The new national television translator station serving Denham and Useless Loop will open tomorrow. The Minister for Lands, Mr Laurance, said at Carnarvon that the Federal Minister for communications had advised the opening date last week. Mr Laurance said engineering test transmissions of programmes had already started from the translator. He said the translator formed part of the Commonwealth Government's remote area television programme. It is located in Denham and will operate on VHF channel 8. Programmes will originate in the ABC studios in Perth and will be relayed to the translator via the Intelsat IV international communications satellite. Mr Laurance said he was pleased the opening date for the station had been announced. He had made many representations to federal authorities to have a TV service provided for Denham and Useless Loop. [Text] [Perth THE WEST AUSTRALIAN in English 4 Nov 82 p 4]

END: 00000000

AUSTAC MULTIPLEXER--CASE Communication Systems has announced an X25 interface and multiplexor product specifically for use with the forthcoming Austpac packet switching system. The DCX 816 will enable terminals and computers operating with asynchronous RS232 interfaces to be connected to the Austpac network without hardware or software changes. It will enable up to eight terminals, printers, modems or computer ports to be multiplexed onto a single Austpac X25 access line. CASE said the multiplexed devices could be attached at any of 10 speeds up to 9600 bits per second and devices of differing speeds could be freely intermixed. With computers or front end processors which support X25, a single DCX 816 can be used as a remote terminal concentrator. Where X25 is not supported by the host computer, a second DCX 816 can be used as a host computer port concentrator, allowing up to eight asynchronous ports to share a single access link. "For those users wishing to change from Datel to Austpac, DCX 816s installed at the terminal and computer ends of the network provide a transparent protocol conversion requiring no changes to computer or terminal equipment," the company said. The unit was proven in Britain, the United States and Europe. According to CASE's managing director, Mr Barry Foster, the DCX 816 is the first X25 multiplexor product to be announced in Australia. [Text] [Canberra THE AUSTRALIAN in English 19 Oct 82 p 24]

CSO: 5500/7515

BRIEFS

TELEVISION FOR TRIVANDRUM--Trivandrum, Nov 15--Trivandrum has started receiving national programmes of Doordarshan relayed through intelsat. The television transmitter installed by Doordarshan at the Tagore Centenary Theatre here has started functioning. There was some trouble in the relay of the programmes initially and the telecast was not clear. But the difficulties are expected to be overcome. A 100 watt transmitter is used and the range will be around 15 km. But, it is expected that those within a 25 km. radius will be able to receive the signals. The telecast time is between 6 p.m. and 10 p.m. The Research and Development wing of the Kerala State Electronics Development Corporation (Keltron), which began the transmission on an experimental basis from August 15, will be closing down its telecasts. A Keltron spokesman said the R and D wing was able to pick up signals from a Soviet satellite "Ekron", the telecasts showing the funeral of the former Soviet President, Brezhnev. [Text] [Madras THE HINDU in English 16 Nov 82 p 1]

CSO: 5500/7036

RAILWAYS PLAN MICROWAVE TESTING IN DECEMBER

Karachi DAWN in English 17 Nov 82 p 5

[Text]

MULTAN, Nov 16: General Manager Pakistan Railway, Mr Amanullah Zafar has said that the microwave telecommunication system will be completed at an estimated cost of Rs 720 million.

Speaking at a reception given in his honour here on Saturday evening, he said that testing of this system of the railways is expected to be undertaken by the end of December.

He said that final touches are being given to the proposals and recommendations for the Sixth Five-Year-Plan of the Railways and the report in this connection will be submitted to the Planning Division next week.

He added that about five crore railway passengers will be benefited by the travelling facilities after the completion of this plan.

Double track

Mr Zafar said that under this plan, double track will be con-

structed from Karachi to Lahore. He added that the existing system of battery for the operation of trains will be continued.

He said that all-out efforts are being made to improve the working of the Railways.

He said that the winter timetable is expected to be enforced from 15 and added that large scale changes have been proposed in the timings and routes of various trains to increase Railways revenue.

Awam Express

He said that running of Awam Express from Karachi at odd hours, (during midnight instead of day time) was under the consideration of the Railways. In this way, he added, the people of Multan will travel to Lahore by this train during day time.

He hoped that during the next two years, seating capacity in trains will be increased by 50 per cent.

CSO: 5500/4313

STEPS TOWARD ISLAMIC NETWORK OF COMMUNICATIONS REVIEWED

Lahore THE PAKISTAN TIMES in English 21 Nov 82 p 4

[Editorial: "Cooperation in the Media"]

[Text]

An agreement signed by the Secretaries of Information of Pakistan and the United Arab Emirates in Islamabad is devoted to the promotion of co-operation in the field of information. A similar accord has been reached earlier with Tunisia at the end of the Third General Assembly of the International Islamic News Agency held in Tunis. Both these arrangements follow the pattern set by a Pak-Saudi media accord signed in May this year, in line with the decisions made inside the OIC to create a Muslim network of communications in the Islamic bloc of countries. The document signed in Islamabad explains that Pakistan and UAE would co-operate in the field of media because such a co-operation 'is dictated by geography, common history, culture, religion and common values'. In the more distant Tunis the same factors of culture operate with the added dimension of the need to

know more about each other at the bilateral plane and to revive the historical-emotional ties the two peoples forged during their struggle for freedom and national independence

The desire to possess its own channels of unbiased information has been felt in the entire Third World bombarded by the Western media agencies. Within the Third World community, the Non-Aligned countries have increasingly demanded an intra-bloc arrangement for the transmission and dissemination of news while the Islamic States in the OIC have initiated a move to set up a separate network of news agencies to strengthen genuine and disinterested sources of direct information. The agreements signed so far aim at a co-operative exchange of informational programmes at the level of the Press, radio and TV. While the audio-visual media will no doubt be of immense assistance in reaching out to the masses of the signatory States it

is the arrangements in the field of journalism that are bound to prove of great significance. It is planned to station journalists representing the various national news agencies in the capitals of the countries concerned so that factual news does not have to go through the filter of a biased international news agency before it is picked up and printed in the national Press. While the exchange of TV programmes will fortify the traffic of information relating to culture on both sides, day-to-day reports on events can only be transmitted through a close co-operation in the Press. How should the Islamic Press be harnessed into a grid of news-transmitting machinery? First of all, the signatory countries must exchange correspondents to fill a representational gap existing over the past half century. Secondly, the Islamic bloc as a whole must co-operate to enhance the technical expertise available to them

in the newspaper industry. Training courses in reporting and editorial work must be arranged and technology imported from the West through pooled resources to modernise the present level of Press facilities. Only after the grooming of our own talents and expertise can we lessen our dependence on the West in the field of bilateral exchange of information.

CSO: 5500/4313

DETAILS ON SADCC INFORMATION SYSTEM GIVEN

Harare THE HERALD in English 18 Nov 82 pp 1, 9

[Text]

THE Southern African Documentation and Information System will be one of Southern Africa's most valuable tools in providing information and combating disinformation, the Deputy Minister of Economic Planning and Development, Cde Ezekiel Sanyangare, said yesterday.

In a speech read on his behalf by Cde Cephas Mangwana, an under-secretary in the ministry, at the closing of the Sadis conference in Harare, Cde Sanyangare said: "This will fulfil the SADCC ideals of collective self-reliance as spelt out in the Lusaka Declaration that established SADCC.

"Sadis will assist the policy-makers to formulate and implement more sophisticated action for the benefit of all SADCC members."

Though the phase of establishing and implementing Sadis was overwhelming, it was immensely important to SADCC and other regional economic groupings in Africa like Ecowas, he said.

Sadis would benefit Swapo and Namibia, the Swapo representative to the Sadis meeting, Cde Peter Nangolo, said.

A system for storing and documenting scientific information from all SADCC member states would be very valuable, he said.

The approval of the Sadis proposals would have to be made by heads of government at their next meeting in Maseru early next year.

Such a system, if approved, would also help researchers who now had to travel from country to country and even overseas to gather information on Southern Africa, Cde Nangolo said.

'Information for the People Must be Aim'

MOST Third World countries have been plagued by too many people being denied access to vital development information, a deputy minister said in Harare yesterday.

The Deputy Minister of Education and Culture (Higher), Senator Joseph Culverwell, was speaking at a lunch for delegates to an interim working group meeting of the Southern African Documentation and Information System (SADIS).

The system needed had to aid development, he said. But for it to be meaningful, access to information must be available to the masses of the people.

"It will not be enough for the planners to monopolise the sources of information in the hope of imposing their bright ideas on the people, who are not as well informed.

"This, in my view, has been the affliction that has plagued development in most Third World countries, when a majority of the people are inadvertently denied access to vital development information."

The peasant farmer wanted regular access to information on all aspects of community life and industry, and could not wait for the itinerate extension officer.

"In a country such as Zimbabwe, where democratic institutions are being strengthened, access to information soon becomes the only guarantee of meaningful involvement in the social, economic and political processes by the masses of the people."

For this reason, Zimbabwe had given high priority to setting up a rural-based national library and documentation service, the programme which was inaugurated last week when the Minister of Education and Culture, Dr Dzingai Mutumbuka, turned the first sod for a culture house in Murewa.

At the opening session on Monday Cde Mutumbuka said member states of SADC urgently needed their own information system to ensure success in various joint efforts.

The benefits of information technology to the region were "unlimited", he said.

With new forms of computers, hard and software components being introduced almost daily and costs being reduced at a commensurate rate, the peoples and governments of Southern Africa could benefit from rapid socio-economic and cultural advances throughout the world.

RADIO TELEVISION STATION TO BE COMPLETED IN MARCH

Libreville L'UNION in French 10 Nov 82 p 2

[Article by Jean-Philippe Bikiro]

[Excerpt] After the laying of the first stone last February by the Prime Minister, head of the government, construction work on the complex of the future RTG station at Oyem effectively began two months later.

The foreman is the UDEC firm. According to M. Lefievre, in charge of the building site, the building will be turned over no later than 15 Mar 83, the major work being already finished.

The building covers a 598 meters² area and includes, among others, two studios for radio, each provided with a production department, and a studio for television. In other respects, the completion of the different works which must be carried out between now and next March has necessitated the reinforcement of a chain of enterprises, among which is SAEPP [expansion unknown], in charge of plumbing and electricity, SOGAFRIC [expansion unknown], in charge of air-conditioning, and the Tibe-Gabon, in charge of waterproofing and laying tiles. As for Brossette et Valor, it will be in charge of the carpentry and the aluminum work, while SOCIPAR will do the painting. The Ministry of Public Works and Construction and SOCOTEC will be permanently in charge of inspecting all work.

CSO: 5500/52

SENEGAL

TAMBA TO HAVE TELEVISION IN TWO MONTHS

Dakar LE SOLEIL in French 23-24 Oct 82 p 7

[Text] On the way back from Koumpentoum, the Prime Minister visited the construction site for the transmitter of the Office of Radio and Television Broadcasting of Senegal (ORTS).

This accomplishment was achieved on the equipment budget and a contribution from FAC. When finished (next 15 Dec), it will solve the thorny problem of radio coverage in the area. According to the technicians the transmitter, with a theoretical range of 100 kilometers during the day, should be able to reach Bakel and Kedougou. According to the Prime Minister, it is necessary to look beyond this "initial progress" in order to envision a system which will be capable of achieving reliable coverage.

Insofar as television is concerned, M. Habib Thiam promised that with the installation of the 100-watt transmitter, the city of Tambacounda will be well covered two months from now.

CSO: 5500/49

CULTURAL ROLE OF SOUTH AFRICAN TELEVISION EXAMINED

Johannesburg RAND DAILY MAIL in English 24 Nov 82 p 18

[Article by Greg Garden]

[Text]

SOUTH African television is not the same as British or American television. It exists in a different local environment and for different purposes.

Over the past few weeks I have slowly been developing my argument that television has a profound effect on our culture.

In effect, TV is perhaps a major sculptor of local culture. But in order to take television seriously, we must be aware of the factors which give a television station or channel its individuality.

Over the next couple of weeks I will discuss the factors which, although not necessarily peculiar to our television, are most notably characteristic of it. I will start in the suburbs with TV1, but, of course, the factors become even more real when we move into the townships with TV2 and TV3.

Afrikaans television reinforces and entrenches Afrikaans culture most effectively. English TV dithers in a vacuum of uncertainty and misconception.

This is the bilingual character of the SABC Television Service. Both legislation and the charter of the SABC demand that the two official languages have equal air-time. This results in various departments of the television service being duplicated.

Thus, there is an Afrikaans drama department and an English one completely independent of it. Documentary, magazine, music, religion, sport, variety and youth and children are all duplicated departments.

News is the only common department as far as air-time is concerned. Perhaps "English news" is less likely to be lost or confused.

"I have no doubt... that television in Afrikaans and English on one channel will promote bilingualism in this country. I know of no other project that will be able to do it better, more effectively, or on a greater scale."

That was Dr Piet Meyer in an October 1975 interview with To the Point. He was chairman of the Com-

mission of Inquiry that approved TV for South Africa, and chairman of the SABC Board.

Bilingualism is, of course, of real concern only to the Afrikaner. It means the cultivation and growth of the Afrikaans language. English does not need help to survive.

This fair cover of bilingualism is, I believe, the major factor we must keep in mind when we analyse the TV1 service. It makes State control a little less manifest.

Interestingly, the Meyer Commission documented three phases for the introduction of TV to South Africa. The first was the time-sharing Afrikaans-English Channel 1. The second was Channels 2 and 3. Phase three involves a separation "sometime after 1980" of English and Afrikaans into two separate channels. This critic has his doubts.

The second characteristic I wish to draw attention to this week is that of State control and assistance. Much has been said and written on this factor, and it does tend to pervade my own writings. So only two points need to be made here.

The first is that the service is ostensibly non-political. All that this means is that party political broadcasts, notably at the time of elections, are outlawed.

As in other countries where the state holds the reins, government policy can be justified in news commentaries and discussion programmes where the participants can be carefully chosen. In such a system the ruling party always has an advantage over the other parties who do not have access to air-time.

The second point is one for reviewers, critics and the discerning viewer to keep in mind. Nothing any of these people say can change the fact that our TV is State-controlled.

There is, thus, a real danger of criticism degenerating into political harassment. That can serve a useful purpose, but critics must attempt to attain the impartiality they may feel the SABC does not, if their criticism is to be meaningful.

BRIEFS

TWO-WAY-RADIO 'WAR'--PHILIPS Mobile Radio, the country's largest manufacturer of two-way radio equipment, fears a debacle as big as that of CB radio as a result of the inexpensive, two-way radio network introduced by the Post Office. The new network, known as Community Repeater Service, brings cheaper radio communications within reach of small businesses--so cheap, in fact, that a price war on two-way radio equipment is in the offing. For, while the Post Office controls the repeater stations that make it all possible, the supply of two-way radios to users is from private suppliers, some of whom could be "fly-by-nights" out to undercut the large established manufacturers. "It's open season, as there is no restriction on imported equipment," warns Philips Mobile Radio director Brian Appleton. [Text] [Johannesburg SUNDAY TIMES in English 21 Nov 82 p 5]

COMPUTER DEAL--CHECKERS has signed a R10-million contract with ICL South Africa for a 2988 super-dual configuration made up of four of ICL's large 2966 computer systems. It can provide network facilities linked to microprocessor systems. Checkers will get more than 200 of ICL's DRS model 50 multi microprocessors, plus associated printers and systems software. The terminal system will be used to provide advanced data processing in every Checkers store with direct links to the 2988. [Text] [Johannesburg RAND DAILY MAIL in English 19 Nov 82 p 16]

'TSWANA PHONE ORDER--SIEMENS has cornered a R167 000 order for 110 Saturn telephone systems for the BophuthaTswana Post Office (BPO). This Saturn 200 system is a small, micro-processor-based, software-controlled telephone system developed for markets where local manufacture, installation and maintenance can be controlled on a regional basis. Siemens is offering the system to all Southern African states, excluding South Africa. The system has a capacity of up to six exchange lines and 20 extensions, with four wires for each instrument. The telephone comprises one basic type with four variations such as a loudspeaking type and a hands-free version. The system can also be used as an intercom. The Saturn 200 includes such features as conference facilities; music on hold; exchange-line booking; digit analysis for trunk barring; call diversion or "follow me" facility; user programmable; and speed calling and last number redial. Siemens has also had an order for 5 000 Masterset III telephones from the BPO. The Masterset III is a standard telephone with either rotary dial or push-button signalling. The telephones will be locally assembled. [Text] [Johannesburg SUNDAY TIMES in English 21 Nov 82 p 7]

TV SERVICE TALKS--Negotiations are continuing between South Africa and Bophutha-Tswana over the projected television service that might be transmitted to the Republic from the independent homeland. This has been confirmed by Mr Henry Howell, chairman of the Bophutha-Tswana Broadcasting Advisory Board, who said this week that no further steps could be taken until the current negotiations had been concluded. The target date for the launching of the proposed independent television service, which will reach into the Witwatersrand area, has been set for the end of 1984. Mr Howell said, however, that it would be foolhardy to set deadlines at this stage. "There have been no further developments (in recent weeks) because the matter is still in the political arena," he said. Mr Howell said that, once the two governments had reached an agreement, further steps could be taken to set up the service. However, he could not comment on the negotiations, which have been necessitated by the fact that Bophutha-Tswana is not recognised internationally. Bophutha-Tswana is therefore not a member of the International Broadcasting Convention, and, because it does not qualify for a television frequency in its own right, is dependent on South Africa for one. Negotiations with South Africa revolve largely round the timing and language content of the proposed television service, which could provide SABC-TV with some unwelcome competition. The independent service envisaged would transmit in English, Afrikaans and Tswana, and could attract a large number of both black and white viewers away from SABC-TV, as well as valuable advertising revenue. [Text]
[Johannesburg SUNDAY TIMES in English 14 Nov 82 p 9]

CSO: 5500/58

MINISTER: 'RADIO RECEPTION IN NORTHERN PROVINCE GENERALLY BAD'

Lusaka DAILY MAIL in English 1 Dec 82 p 3

[Text] POOR radio reception from Zambia Broadcasting Services in the Northern Province had exposed listeners there to hostile propaganda from outside radio stations.

The situation has been worsened by the delay in constructing staff houses, a radio transmitter house and auxiliary work at Kasama for Zambia Broadcasting Services.

This came to light when the Minister of Information and Broadcasting Services, Mr Mark Tambatamba and his delegation visited Kasama over the weekend to appraise himself with the operation problems in the area.

The new transmitter would have helped improve the situation but the Public Works Department (PWD) had done very little to complete the job.

Mr Tambatamba said the reasons given were not justified because similar work had been well done on schedule in Mansa and Mongu.

The minister, who was reviewing the situation after the tour of the Northern Province said a 500 kilowatt transmitter would have been built next year, if money was available so as to counteract the 'infectious' hostile propaganda from powerful outside radio stations.

Mr Tambatamba said he was optimistic Zambia would stave off the enemy propaganda, given adequate financial resources, but that he was greatly disturbed that the money allocated for the construction of the ZBS township complex in Kasama would be returned to the treasury due to failure to complete the project on schedule.

He said: "Radio reception in the Northern Province is generally bad. We still hope that the shortwave transmitters at Twinpalm and Shorthorn in Lusaka would endeavour to give the needed radio reception in the area."

The minister, who was speaking during a stopover at Ndola Airport on Monday said the tour was an invaluable eye-opener because his delegation had known prickly problems facing his ministry.

The alternative to the radio reception malaise in the Northern Province was to provide booster radio transmitters but adequate funds were not forthcoming, hence the dilemma.

Mr Tambatamba regretted that people in the area had resorted to listening to other radio stations, whose programmes were harmful to Zambia.

CSO: 5500/61

BRIEFS

RADIO TRANSMITTER PURCHASE--The Ministry of Information and Broadcasting Services yesterday signed a K2 million contract with a French firm, Thomson CSF, for the purchase of a 500 kilowatts medium wave radio transmitter. The contract was signed at the ministry headquarters by Permanent Secretary Mr Alex Lubinda and Areas sales manager of Thomson CSF, Mr Philippe Maussenet. Mr Lubinda said in view of transmission problems being faced by the Zambia Broadcasting Services (ZBS), the ministry had been scouting for equipment abroad. The transmitter, which is expected to be in the country and fully operational in 18 months' time, is expected to end most of ZBS transmission blues over the country, particularly at night. Mr Maussenet told the permanent secretary and officials who witnessed the signing ceremony that Zambia was getting one of the most powerful and modern transmitters on the continent. He said his firm dealt in radio transmission, aviation, medical and other equipment with over 150 countries all over the world. [Text]
[Lusaka DAILY MAIL in English 13 Nov 82 p 1]

CSO: 5500/57

TELEPHONE, ELECTRONIC EQUIPMENT EXPORT DEVELOPMENTS

Telephone Contracts in Iraq, USSR

Paris ELECTRONIQUE ACTUALITES in French 29 Oct 82 pp 1, 8

[Article by D. Levy]

[Text] The orders for telecommunications equipment received by our manufacturers between July 1981 and June 1982, have reached 6.4 billion francs, for an increase of 41 percent over the corresponding period of last year. This result confirms and accelerates the trend observed for the last three years in the exportation of telecommunications equipment. At a time when French foreign trade is declining dangerously, in the area of electrical and electronic fabrication as elsewhere (see following article), the field of telecommunications appears as a particularly privileged sector.

The last known figures for the exportation of telecommunications equipment are the concrete results of our industrialists' efforts on foreign markets, efforts that are indispensable for maintaining their level of activity so as to compensate for the lower volume of orders from PTT.

Between July 1981 and June 1982, the orders received have gone from 4.517 billion francs to 6.390 billion, for a growth of 41 percent with respect to the corresponding period of last year. The companies that received the largest orders during this period are Thomson-CSF with 2.46 billion francs, CGE with 2.39 billion (CIT-Alcatel and Cables de Lyon contracts), the G3S group (SAT, Sagem, CSEE) with 760 million francs (MF), TRT with 500 MF, and CGCT with 270 MF.

The major contracts were obtained by Thomson-CSF in Iraq to supply 30 MT-20 and MT-25 telephone exchanges for 850 MF, in the USSR to provide monitoring equipment for the Siberian gas pipeline (410 MF); and in Egypt to deliver 11-F telephone exchanges (664 MF). At the same time, CGE received orders for a submarine telephone cable to link Spain and Belgium (260 MF), and for two E-10 telephone exchanges to provide 30,000 lines in Uganda (100 MF). We should point out that these are firm rather than expected orders; this explains for instance why the contract won by CIT-Alcatel in India to supply 200,000 time-switched E-10 lines, and a plant for telephone exchanges with a capability of 500,000 lines per year (representing a total of 3.2 billion francs), is not included in the orders mentioned above.

The exportation orders figures for telecommunications equipment, that have just been released by PTT, confirm and reinforce the trend observed in recent years. After having reached a maximum of 2513 MF in 1976, the exportation orders received by our manufacturers registered 1845 MF in 1977, 2026 MF in 1978, 3358 MF in 1979, and 4960 MF in 1980.

General Increase

The exportation rate was somewhat lower last year, when the orders received between January and December 1981 grew by only 10 percent, to about 5.2 billion francs. But a definite improvement occurred this year, when the 12-month comparison of orders received between 1 April 1981 and 31 March 1982, showed a growth of 1.2 billion francs to nearly 5.6 billion in foreign orders, for an increase of 27 percent.

The rate of orders accelerated during the second quarter of this year, as the growth rate with respect to the previous 12 months reached 41 percent. It is interesting to note that this increase generally affects all our manufacturers. Indeed, during the period between 1 July 1981 and 30 June 1982, the orders received by Thomson-CSF amounted to 2462 billion francs against 1901 billion for the corresponding period of last year; the figures for CGE were 2397 billion against 1587 billion; for the G3S group, 761 MF against 551 MF; for TRT, 501 MF against 301 MF; and for CGCT, 269 MF against 177 MF.

Electronic Equipment Exports Decline

Paris ELECTRONIQUE ACTUALITES in French 29 Oct 82 pp 1, 3

[Unsigned article]

[Text] The first six months of the year were marked by a decline in our foreign trade of electrical, electronic, and data processing equipment. Indeed, the balance of trade shows a decline of 2.5 billion francs, from a positive figure of 961 MF for the corresponding period of last year, to a negative one of 1507 MF for the first six months of 1982. This decrease, which according to preliminary customs statistics has worsened during July and August, is due to the general growth in importations, which have reached a level of 28.329 billion francs (+28 percent). The growth in exportations to 26.822 billion francs (+16.2 percent) does represent a satisfactory element. Another encouraging sign is the solid situation of equipment goods, the only sector that still has a positive balance, although with a slight drop.

A breakdown of our industries' foreign trade for the first six months of the year shows the following situation: for equipment goods, exportations amounted to 19,355 MF against 16,251 MF for the corresponding period of 1981, for an increase of 19.1 percent, while importations reached 15,481 MF against 12,191 MF (+26.9 percent), with the balance going from a positive figure of 3874 MF compared to 4060 MF (-186 MF).

For consumer goods, exportations settled at 3525 MF against 3114 MF (+11.3 percent), and importations at 8293 MF against 6071 MF (+36.5 percent), with the balance weakening to -4768 MF against -2957 MF (-1811 MF). In intermediate goods, exportations reached 3942 MF against 3721 MF (+5.9 percent), and importations 4555 MF against 3863 MF (+17.9 percent), with the balance showing a negative total of 613 MF against -142 MF (-471 MF).

Deficit Concentrated in the Country

The change in the trend of our trade can therefore be attributed to increased importations. By itself, the progress of exportations remains satisfactory (+16.2 percent); it is higher than the inflation rate, and remains the favorable element for production, given the dullness of the domestic market. We need only point out the performance in the areas of industrial electrical equipment, wires and cables, telephone equipment, and electronic equipment. On the other hand, importations have increased by 28 percent, and that is worrisome.

More than one-half of this growth of over 6 billion in six months is due to only three areas: data processing, where importations increased by 38 percent, from 4820 MF to 6600 MF (+1840 MF); sound reproduction and recording equipment, which increased by 61 percent from 1863 MF to 3000 MF (+1137 MF); and electrical household appliances, which grew by 29 percent from 2237 MF to 3033 MF (+776 MF).

The geographic orientation of foreign trade obviously changes little over a period of one year. But we can observe that in exportations, Europe's portion has decreased (57 percent to 53 percent, reflecting the doldrums of the European economy), in favor of the Middle East (from 8 percent to 13 percent).

In importations, North America went from 26 percent to 24 percent of the total, while the Far East increased from 14 percent to 16 percent.

An analysis of the changes in our trade with our major partners makes it possible to better define the evolution that we just discussed.

While our trade balance was up to now positive thanks to sales in developing nations, in Eastern countries, in AELE (European Free Exchange Association) countries, in Benelux, and in Great Britain, it was already negative with our four major suppliers. This deficit has worsened.

With Germany, it has exactly doubled from 1098 MF to 2196 MF. Almost all the manufacturing branches are affected, but data processing (285 MF) and passive electronic components (169 MF) are the main targets.

With Italy, the deficit has tripled from 338 MF to 1102 MF. Once more, data processing and major appliances are the most affected sectors.

With the United States, the deficit has gone from 4583 MF to 5689 MF. Data processing alone represents more than one-half (2891 MF) of this deficit.

It should be mentioned that one-fourth of the worsened balance derives from a difference in billing for high-power and high-voltage electrical equipment--which requires long execution lead times, and for which six-months or even yearly statistics have very little significance.

With Japan, the deficit has changed from 1867 MF to 2924 MF, the balance having thus deteriorated by 57 percent.

Two-thirds of our deficit with Japan is attributable to sound reproduction and recording equipment. But the balance has also deteriorated in data processing and electronic components. It has improved for electrical equipment and household appliances, but the overall trade picture remains unbalanced.

These four countries together, represent 27.5 percent of our total exportations, and 68 percent of our importations. The evolution of our trade with them should therefore be watched with particular attention.

11,023
CSO: 5500/2545

STRATEGIES OF THOMSON, CIT-ALCATEL IN TELECOPIER MARKET

Paris L'USINE NOUVELLE in French 4 Nov 82 pp 100-101

[Article by Blandine Hennion: "Telecopiers: All or Nothing for the French"]

[Excerpts] Will the telecopier, relatively undeveloped in France, find its place between today's telex and tomorrow's electronic mail? In the second of a series of articles devoted to office equipment markets (the first appeared in our No 44 and was devoted to word processing), L'USINE NOUVELLE reveals the strategies of the French companies Thomson and CIT-Alcatel.

Everyone is familiar with the telex, the oldest of text communication services. Its success was promoted by international standardization: telexes are easily exchanged between countries.

On the other hand, the telecopier has suffered greatly from a lack of standardization. In the beginning, transmission between two different machines was quite simply impossible. The work of the CCITT (International Consultative Committee on Telephones and Telegraphs) has remedied this situation...

In Europe, where the telex network is relatively more developed, the extent of telecopying is more modest. The British market is slightly larger than the French market, where there are only 12,000 telecopiers installed (500,000 in Europe). But the news in that area from SICOB [International Data Processing, Communications and Office Equipment Show] is the emergence of the French manufacturers Thomson-CSF and CIT-Alcatel. The firms are counting on development of the market in the next 2 years.

The Future: High-Speed Telecopiers

In a way, it is the second and last chance for France in this area, after the first approach in 1977. The PIT [French Postal, Telephone and Telegraph Company] was then betting on a widely distributed telecopier whose cost would be below Fr 1500 and whose distribution would quickly reach a million units. MATRA SECRE [Electronics Research and Manufacturing Company], Thomson and SAGEM [Company for the General Application of

Electricity and Engineering] had participated in the research market (3,700 Secre units were sold by the EGT [Commercial Division of the PIT]). In 1979, the objective was more reasonably oriented towards professional use, and anarchy in the development of telecopiers was avoided by the adoption of CCITT standards.

Four telecopier groups were defined in these standards. The telecopiers in group 1, analog (frequency modulation), can transmit an A4 format document in 6 minutes over the public telephone network. The machines in this first generation are rarely compatible with each other. The telecopiers in group 2, analog, use amplitude modulation and communicate a document in 3 minutes. For the third group, numerical transmission requires 1 to 2 minutes on public or specialized networks. This standard, which has not yet been officially distributed, has delayed the authorization of group 3 machines by the PTT for several months. Finally, group 4, open to "multifunctions," still lies in the future. These high-speed telecopiers transmit a document in several seconds through package transmission networks. Because it wants to preserve the compatibility of telecopiers with each other, the PTT is subjecting their sale in France to official approval.

Under these specific market conditions that "protect" France from invasions of foreign equipment, Thomson-CSF presented at the SICOB its Thomfax 2000 telecopier, recently approved in the TGD (widely distributed telecopier) category. "It is compatible with CCITT equipment in groups 2 and 3, and has a speed of 2,400 bits a second. 'Copy received' system makes it possible to verify that communication of the document actually took place. As for its reception, it is automatic," declares Claude Berlemont, sales director at Thomson-CSF.

On the other hand, automatic document loading is possible only as an option. The transmission of an A4 format document takes 2 minutes (with a resolution of 8 times 3.85 lines per millimeter). This telecopier, which uses heat-sensitive paper, is made in the Laval plant at the rate of 1,000 machines a month, production that will increase to 3,000 units a month at the end of 1983. It is the only one that is completely French. By the end of next year, Thomson-CSF hopes to control 30 percent of the French market (Fr 130 million) and 10 to 15 percent of the world market, with the firm forecasting sales of Fr 500 million in this field in 1983. The machine is sold for Fr 23,000.

Manufacture of the Thomfax 3000 is also starting at the Laval plant. Derived from the preceding one, but with a modem (modulator-demodulator allowing transmission through the telephone network) of 4,800 bits/second, it will transmit a typed A4 document in 1 minute.

The two machines are aimed at a use rate of 30 to 50 copies a day. Thomson thus finds itself at the top of the line of telecopiers, since it already distributes the Thomfax 1600, a small bottom of the line telecopier in group 2 made by the Japanese (OKI-Electric), and the Thomfax 6000, supplied by 3M, for high-speed document delivery.

On the maintenance side, Thomson will use two distribution networks: "Specialized vendors for this line, on the one hand, and the network of 120 telephone agencies on the other hand," explains Jean-Luc Fourniou, technical sales director for Thomson-CSF-Telephone. The EGT, commercial subsidiary of the PTT, has ordered 5,000 Thomfax 2000 units from Thomson that it will market under the name of Tegefax....

Another French group, another strategy. CIT-Alcatel used to sell American-designed equipment (Burroughs) with the line of three Citedex telecopiers. "Now we offer a line of four group 3 numerical 5200 telecopiers whose speed varies, depending on the model, between 30 seconds and 2 minutes a page. The prices are between Fr 28,000 and Fr 50,000 for these approved units," declares Michel Persuy (CIT-Alcatel). Like the Thomfax, they are tabletop telecopiers, but, with automatic loading, they use an electrostatic printing system. The speeds vary from 2,400 to 9,600 bits/second. The peculiarity of the line is that it offers separate senders and receivers.

Towards Multifunction Telecopy

But the great novelty of CIT is at the top of the line, with the Alcatel 5500 telecopier, a high-volume sender-receiver whose performance represent a real technological advance. In fact, this unit makes a copy on ordinary paper and allows memory-to-memory distribution of documents to several destinations. Transmission takes place on a 9,600 bit/second line of the Transpac type. The analyzer processes a format A4 document in 3 to 4 seconds. Depending on the resolution selected, the document is transmitted in 13 or 26 seconds.

"This machine is the product of a research team numbering 70 persons. The printing head was designed at the Ormes plant, in the Loiret," continues Michel Persuy. Only the mechanical part of the printer is supplied by Minolta. This unit has a multinetwork and multifunction destination. Next year CIT will offer firms and internal communications system. Based on the memorization of documents, it opens up the possibility of memory-to-memory transmission, which makes delayed transmission possible. This is the first step toward electronic mail and message delivery. Hence, cost savings, at night, for example. Prices for the Alcatel 5500 range between Fr 250,000 and 400,000.

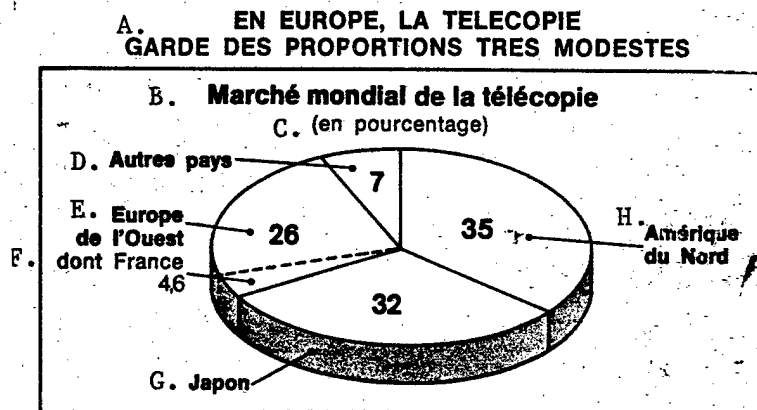
CIT is thinking about placing several hundred units a year, basically on the leasing market, in order to reach 1,500 to 2,000 units in 5 years.

"For CIT, it is not so much a question of minimizing the cost of the unit (the future generation will reach Fr 500,000) as the operating cost. Thus, with the Alcatel 5500, for a use rate of 500 copies a day, the cost per page falls to Fr 2 at night." The criterion here is more the increase in traffic than the number of units installed.

This choice is facilitated by the French policy of official approval, which tends to limit the price war. Only two models have been approved for Rank Xerox, which is still the leader in the American market: the 400,

sold since 1972 (first telecopier sold in France), and the 485, very recently (they are both analog units). Not to mention the Japanese firms like Canon or Sanyo, which are no longer applying for approval.

But the French market is too restricted to assure a commercial success for the nation's manufacturers, which will really have to fight it out in the world market and impose their technology there. In the United States, annual development of 18.5 percent between now and 1986 and the gradual disappearance of group 1 units is predicted. The high-speed units in groups 3 and 4 will take over. The same thing in Japan, with a 24-percent annual growth in telecopiers between now and 1985. The development of transmission speed and satellite communication will then make possible the birth of multifunction telecopying, integrated with electronic document transmission as one of the elements of new office systems.



- Key:
- A. In Europe, telecopy proportions remain very modest
 - B. World Telecopy Market
 - C. (in percentage)
 - D. Other countries
 - E. Western Europe
 - F. (including France)
 - G. Japan
 - H. North America

9969

CSO: 5500/2551

BULL, TRANSAC-ALCATEL, THOMSON'S DAP FORM DATE PROCESSING GROUP

Paris L'USINE NOUVELLE in French 18 Nov 82 p 86

[Article by Olivier Fleurot: "Distributed Data Processing: Regrouping Under the Leadership of CMB"]

[Text] The Bull Machine Company (CMB) would soon take a majority share in Transac-Alcatel. The stakes would be to create a distributed data processing group in this way. But the teams are having difficulty keeping up out in the field.

Since September, three departments or subsidiaries of newly nationalized firms have learned that they were going to be regrouped. Their common points: the production or the marketing of multifunction date processing terminals and the desire to know as soon as possible what kind of a package they were going to be wrapped up in. Involved are the department of peri-date processing activities (DAP) [peripherals, terminals, microprocessors] of Thomson-CSF [General Telegraph Company], Transac-Alcatel [Alsacian Electronics and Telecommunication Company], subsidiary of CIT-Alcatel, and therefore of CGE [General Electricity Company]; and the corresponding activities of CII [International Data Processing Company]-HB [Honeywell-Bull] (Questar T and TTX 35 terminals).

The upcoming signing of the protocol of an agreement between CMB and CIT-Alcatel should wrap up the financing operation: CMB would take a majority share in Transac-Alcatel, thus achieving the announced regrouping. In fact, DAP and its line of B 4000 and T 4000 terminals had been connected to Sems [Mechanical and Signal Electric Company] since April 1982. The Sems-DAP team is going to be bought from Thomson-CSF by CMB, which is already a majority stockholder of CII-HB. The transfer of shares could take place 1 January 1983.

With Transac-Alcatel (1,600 employees, sales of Fr 600 million in 1982), the same stockholder, CMB, will control the three companies engaged in the same activity. The financing package will be wrapped up. The hardest part remains to be accomplished! Because the three lines of equipment are in direct competition, and it will not be possible to continue to develop them simultaneously in a market where competition is so fierce. On the

other hand, it is certain that the technology of office or data processing terminals (the difference between these two categories is very quickly disappearing) is far from static and product lines should be coordinated for the next generation.

Who will win out, then? The transac T 15 line, which has recently added a model managing four terminals and a single terminal, the Sems Corail line, partially the result of an agreement with an American company, Convergent Technologies, or that if CII-HB? The thesis defended at the Ministry of Research and INdustry is apparently logical: No one of the three entities had reached critical size, since they were in sixteenth, seventeenth and eighteenth places in the European market for transaction management systems. But the strategies implemented for the past 2 years by Alcatel Electronics or Thomson-CSF, based on the complementary nature of data processing and office products (terminals, private telephone systems) and applying to integrated information systems are now obsolete.

A ship loses speed each time the helmsman turns the wheel; any good sailor knows that. For the past several months, sales of the Corail line have been slowed down by indecision.

9969

CSO: 5500/2551

SOVIET TV RECEIVED THROUGH HORIZONT I SATELLITE

Reykjavik MORGUNBLADID in Icelandic 6 Nov 82 p 13

[Article: "Private Parties Receive Satellite Television Transmissions for the First Time in Iceland"]

[Text] The Hljombaer Company Inc has set up equipment to receive satellite television transmissions. Newsmen were invited the day before yesterday to view Soviet television transmissions on company equipment. Picture quality turned out to be excellent, no worse than Icelandic television.

So far only transmissions of this one satellite can be seen since satellites of other nations have not yet been launched. The Soviet satellite in question is called Horizont I and is positioned 13 degrees above the equator, western longitude, 36 kilometers above the earth. It beams transmissions on three separate channels and television broadcasts from Cuba may also be seen via the satellite. During the years 1985 and 1986 it is planned to launch satellites from West Germany, England, Luxemburg and France. Transmissions from these satellites should be receivable in Iceland with the existing equipment if the signals are not encoded. These satellites will be better positioned for us since they will be located near our longitude.

Receiving the transmissions is a disk 3 meters in diameter. Also needed is equipment to modify the signal of the satellite for television transmission. Total cost of the equipment is up to 300,000 krona. It is said that a 2 1/2 meter disk would be sufficient and then costs would be 250,000.

There will be an open house at the offices of Hljombaer Inc at Hverfisgatta 103, on Saturday 6 November from 10:00 to 16:00, to acquaint the public with the equipment.

9857

CSO: 5500/2547

MARXIST PARTY ORGAN ENVISIONS SOVIET TV IN ICELANDIC

Reykjavik MORGUNBLADID in Icelandic 6 Nov 82 p 13

[Commentary by Staksteinar: "Soviet Television Received in Iceland"]

[Excerpt] It is to be expected, after THJODVILJINN's front page publication of the news that Soviet television may now be seen in Iceland, that a debate will begin in Reykjavik on the need for this transmission to be viewed widely in Iceland as a suitable counterweight to the "Western" influence that People's Alliance protagonists think bad for others. It suits THJODVILJINN to have started this "debate" since it is thereby true to its origins and position as the protector of Iceland.

Sincere Joy

About a decade ago, nothing, in the view of THJODVILJINN, was more dangerous for Iceland than that some foreign party would be in a position to send its television transmissions to Iceland to bend Iceland to its will. To be sure, no one in the Reykjavik area could receive such transmissions except through using a special amplifier on his antenna. The danger was finally averted by ordering the foreign party to send his television transmissions by cable. Thereby other persons than those living on the military base at the Keflavik airfield were prevented from seeing the military television broadcasts. At about this time people realized that it would not be possible to prevent Icelanders from having access to foreign television transmissions via satellite for the long term. The People's Alliance protagonists, however, would hear none of it and took the view that the Icelandic people would be humiliated by watching the "military television" even though television programs shown in Keflavik are a selection of American television programs and there are now proposals to receive programs in their place from a satellite via a special receiving station.

Yesterday THJODVILJINN's reporters were unable to hide their joy over the fact that it is now possible for Icelanders to receive foreign television stations. At first glance, many will wonder at this pure joy in view of the previous rebuke of Keflavik television by the paper. At closer inspection, however, the reason for the joy is clear: These are Soviet television

stations. The front page article of THJODVILJINN on the matter began as follows: "It is now obvious that Soviet television will be received in Iceland and not one channel but three." (!) The paper added that the three channels will be received via a special picture as clear as that of Icelandic television. THJODVILJINN goes on:

"It is thus clear that the Soviets will, during the next 3 to 4 years, make efforts to broadcast television programs to Iceland via satellite and that this is an opportunity, not the least if they attempt to broadcast their programs in Icelandic, something that is entirely possible. Cable systems, such as those of Breidholt or Borgarness, for example, where the cable system is most developed, could hope to hear something like: 'Good evening citizens of Breidhold, here is Soviet television.'"

Will Maria Thorsteinsdottir be the first Novostic television editor and Soviet ambassador to Iceland?

9857

CSO: 5500/2547

TELECOMMUNICATIONS AGENCY TAKING BIDS ON DIGITAL EXCHANGES

Oslo AFTENPOSTEN in Norwegian 2 Dec 82 p 29

[Article by Knut Løvstuhagen: "Elektrisk Bureau is Optimistic--Confident of Telecommunications Agency Contract"]

[Text] "If" has become a taboo word at Elektrisk Bureau when the conversation concerns who will get the order for the digital telephone exchanges the Telecommunications Agency will have in connection with the imminent modernization of the telephone system here at home. On the outside no Elektrisk Bureau (EB) employee is in doubt regarding the outcome of this matter--therefore, it is just "when we get the contract." On Thursday, 30 December, at 1200 hours the deadline expires which the Telecommunications Agency has set for placing of bids for the telephone exchanges.

Prior to this time Elektrisk Bureau will have laid down almost 10 million kroner and nearly worn out 30 or 40 staff members in producing documents which will convince the Telecommunications Agency and our political authorities that their bid is the best.

The situation is indeed identical among the other four firms which have joined the competition for the "telecommunications deal of the century" here at home. How much the contract will amount to is unclear for the time being, but it will probably concern 500 million to 700 million kroner. The equipment the Telecommunications Agency must have will cover a half million party numbers. It has been said at EB that their bid will be well under a billion kroner, but AFTENPOSTEN has been informed from other sources that it is normally a question of about 1000 kroner per number.

It has never happened before that the Telecommunications Agency went beyond the country's borders to take bids on public telephone exchanges, as happened this time. Traditionally exchange equipment for the largest cities has been ordered from Standard Telefon og Kabelfabrik [Standard Telephone and Cable Factory], but EB has supplied the rest of the country. As far as that goes, a pleasant situation for the firms concerned, which have been spared from worrying about disturbing competition from outside. But the idyll vanished when the Conservative government focused on the idea of competition; there was the suspicion that EB and STK were too well paid for supplying the Telecommunications Agency because no real competition existed between them (in spite of the Telecommunications Agency's right to

audit their accounts). The government decided that bids for the new digital equipment would be gotten also from firms outside of Norway.

Five in the Running

The Telecommunications Agency sent inquiries to six firms, namely, EB and STK in Norway, Northern Telecom in Canada, Siemens in West Germany, Philips in the Netherlands and Nippon Electric Co. (NEC) in Japan. After political pressure from France CIT-Alcatel was also included in the list. Today five companies remain, after Siemens and Philips withdrew for various reasons.

The government voted to make limited international inquiries regarding the digital telephone exchange equipment in spite of the fact that a previous round of hearings had unveiled major protests. Not only were the two firms concerned and LO [Norwegian Federation of Labor] opposed to this idea; the same was true of the Telecommunications Agency's management, the Norwegian Industry Federation, and also the Industry Ministry. Not least there was worry over the consequences for the established telecommunications industry in Norway if the contract should go to a foreign concern. The government, through its "cause spokesperson" Inger Koppernaes, however, made a point of the fact that neither EB nor STK are Norwegian firms inasmuch as both have foreign owner interests. And her view is that both EB and STK have advantages over their competitors by virtue of their close knowledge of the home market. "If they both put their hearts into it and get full support from their parent companies one of them should manage to land the contract," she declared recently.

At Elektrisk Bureau there is an uproar over the fact that even the political leadership here at home considers the firm foreign-controlled. "Sure enough the Swedish major concern L.M. Ericsson has 25 percent of the stock, but other foreign interests have a minority interest in the firm. But 67 percent of EB is in Norwegian hands, which is thereby more Norwegian than the case is with Norsk Hydro, for example," says Board of Directors Secretary Arne Myhrvold to AFTENPOSTEN.

Besides, EB has chosen to shift the potential negative with foreign competition to the positive. "The new situation has made us shape up, and we have adapted to the fact that Norway, too, has become a competitive market. When we get the contract for the digital telephone exchanges we will be better armed than if we had not had an open competition for bids," says Project Leader Thore Beck. He is in charge of the job of preparing a bid to the Telecommunications Agency.

There is, however, one worry which is current at EB. There is fear that the matter can become so politically simplified during discussion in the ministry and Storting [Parliament] that the Telecommunications Agency's technical assessment of the bids will be ignored. On the basis of the bids the Telecommunications Agency is to prepare a recommendation for the Ministry of Transport and Communications, which in turn is to submit a bill to the Storting. It is our elected officials who in the end are to give the Telecommunications Agency authorization to order the equipment.

"It is in the political handling of the matter that we are afraid that a 'misfortune' can take place," says Beck. "On the political stage, after the Telecommunications Agency has given its technical advice, a sloganed debate can

originate over prices, without a basis for rough estimates of expenses having been clarified."

Beck hints that some of the bids for the digital equipment will perhaps be dumping prices, in an attempt to acquire new markets or because Norway is viewed as a springboard toward Europe. In that case it is a question of whether the politicians keep a cool head and are ready to read between the lines.

Bought by 44 Countries

The digital telephone equipment which EB will offer the Telecommunications Agency is of the AXE type and was developed by L.N. Ericsson. Hitherto AXE systems have been bought by 44 countries since they were introduced 10 years ago, and there is no doubt that the system is the most sold of those the Telecommunications Agency has to choose from. If EB gets the contract the company will produce the AXE system by license here at home. Only a third of the components are to be imported and the company is working completely independently of L.N. Ericsson as far as drawing up the bid to the Telecommunications Agency is concerned. Here as completely Norwegian a line as possible has been adhered to.

To the question of why the Telecommunications Agency should put its money on the AXE system, Project Leader Thore Beck answers that, first, the AXE system is the leading digital telephone exchange system in the world. In addition, EB has already prepared for many years for the introduction of the AXE system in Norway, so that today the company has competence and production and service equipment ready in order to take on the job. Besides, a not unessential point is that AXE is already in Norway. The system exists as a mobile telephone exchange in Oslo and Bergen, as a new Telex exchange in Oslo and as a data transmission network exchange in Oslo and Bergen. The other Scandinavian countries have chosen AXE and Beck sees no technical reason why the Telecommunications Agency should break the established cooperation with our neighboring countries by choosing another solution. The motive could in this case be purely politically determined.

8985

CSO: 5500/2557

'TELEBILD' TELEDATA SYSTEM PROVIDES INFORMATION TO BUSINESS

Stockholm SVENSKA DAGBLADET in Swedish 30 Sep 82 p 30

[Article by Kjell Brodda: "Fast Information for the Economy Via Telebild"]

[Text] Now the economy can get important information by means of teledata. Subscribers will be offered the latest news, financial information, stock market data, facts on export markets and travel service.

The idea of the system, Telebild, is that anybody even if they have no computer training should be able to use it after a short introduction. The only thing required is a common TV and a keyboard. The contact with Telebild will then be maintained via the common telephone network.

Travel Reservations

But Telebild will not only disseminate information; the intention is that they will also be able to accept information from the subscribers. It will be possible to make travel reservations, arrange for insurance and order certain goods. Within the immediate future it will also become possible for Telebild's customers themselves to book tickets with the associated travel agencies and take care of the payment themselves through banks connected to Telebild.

The information which already today is available for companies is the latest currency rates which are updated continuously. The stock market list will also be available, and according to Telebild's assistant director Goran Asplund the intention is that the stock market computer will be connected directly to the system. Then investors and other interested people around the country will be able to get stock market information just as fast as the brokers on the Exchange. In addition, companies will be able to participate in all of TT's financial services.

News

News which is of interest to the economy will be updated four times each day. The material is obtained from VECKANS AFFARER, DAGENS INDUSTRI, SVENSKA DAGBLADET, and TT.

Many companies will also use Telebild to develop an internal communications network, naturally blocked to the uninvited. In this way Facit keeps in contact with its distributors, ICA with those who are interested in it, and SAF with its district offices, etc. For companies which are members of SAF this means better contact with their own organization, but also that they will have access to the Industry Association's data bases as well as SE Banken's financial information, as an example.

Data Bases

Over a somewhat longer range Telebild will also be the link between Swedish companies and the large data bases located on the continent and in the United States. An infinite offer of information will then open up in the immediate future. And that is precisely the problem now; how will it be possible to select and find all this information? For the time being Telebild's subscribers will have to make do with Money News Report.

A long series of organizations, companies and banks connected to the economy stand behind Telebild. However, the company is owned by a consortium, which consists of SVENSKA DAGBLADET AB, Teleinvest (the telecommunications administration), companies close to the Ericsson Company, as well as Goran Asplund AB.

8958

CSO: 5500/2517

END